



中国科学院高能物理研究所
Institute of High Energy Physics
Chinese Academy of Sciences



Double Jpsi cut number



each cut



Cut	2016	2017
Total entries	85903	88355
mu cut(mu pt > 3.5, mu eta <2.4)	17569	23326
Jpsi cut(Jpsi pt>10, Jpsi eta <2)	10659	13398
trigger cut Jpsi mass cut	55091	53512



cut flow



Cut flow	2016	2017
Total entries	85903	88355
trigger cut and mass cut	55091	53512
mu cut&& trigger and mass cut	15040	20674
mu cut&& trigger mass cut && Jpsi cut	7290	9832



cut flow



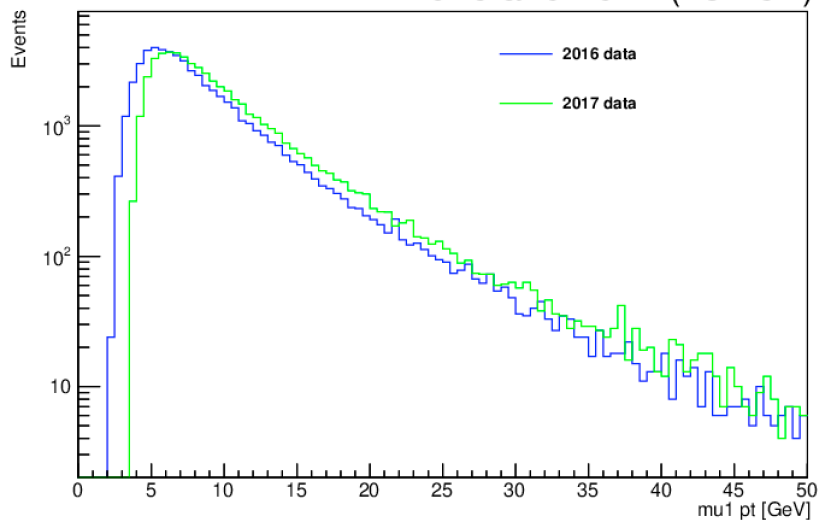
Cut flow	2016	2017
Total entries	85903	88355
trigger cut	63073	61116
mu cut(>3.5GeV)&& trigger cut	16614	22802
mu cut&& trigger cut && Jpsi cut	8082	10866



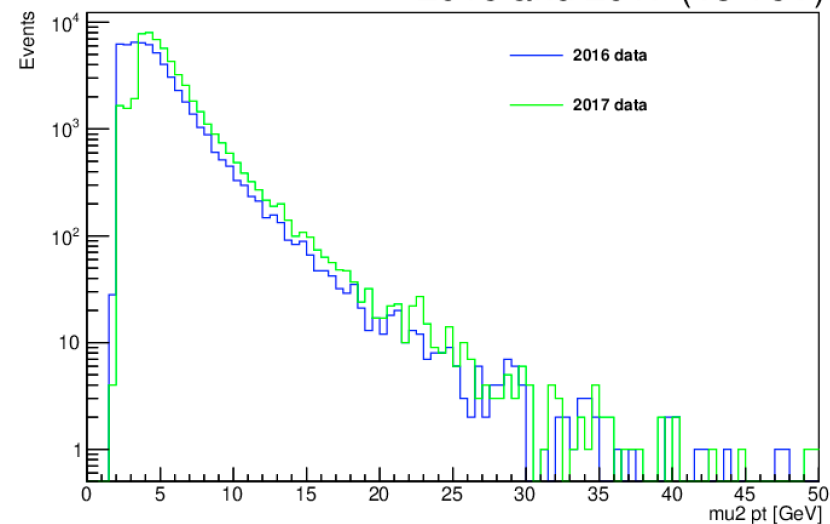
Data



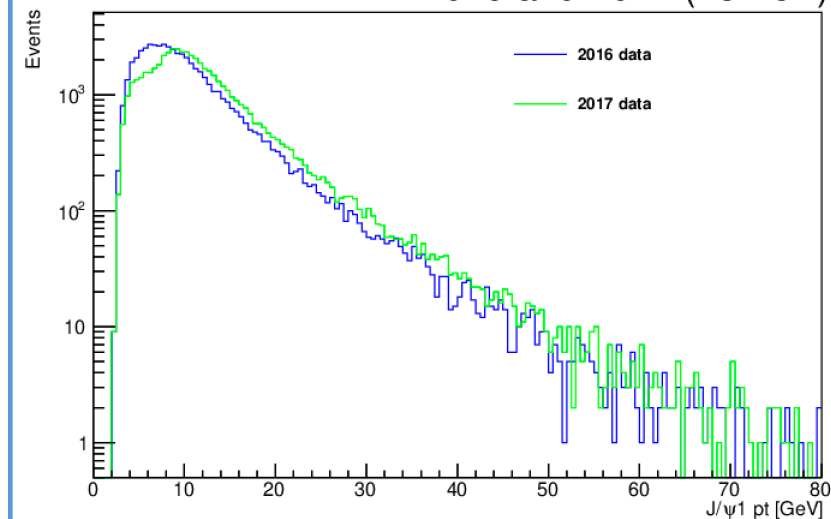
2016 and 2017 (13 TeV)



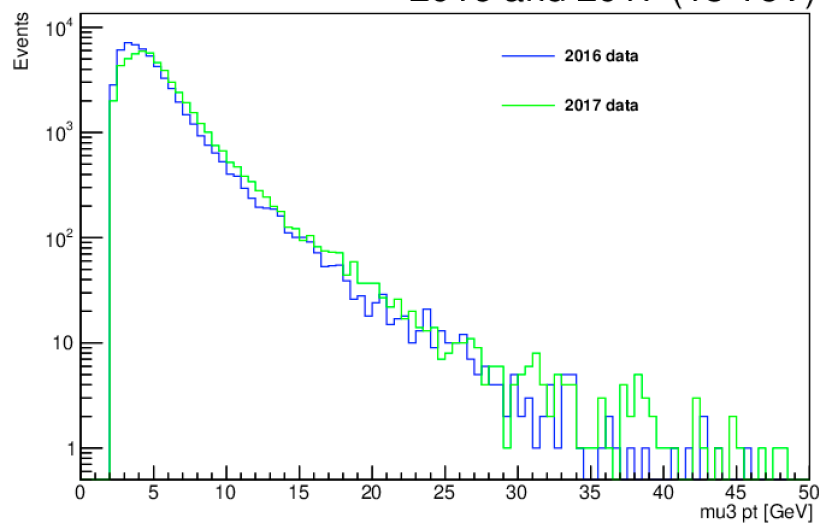
2016 and 2017 (13 TeV)



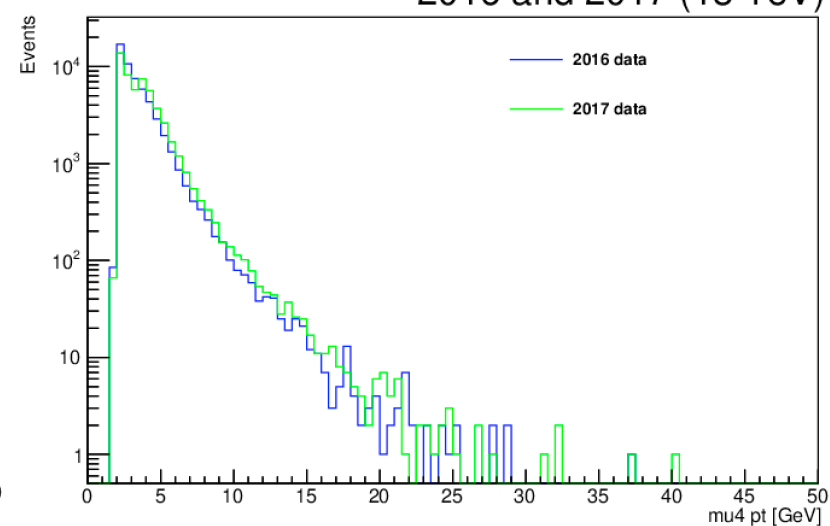
2016 and 2017 (13 TeV)



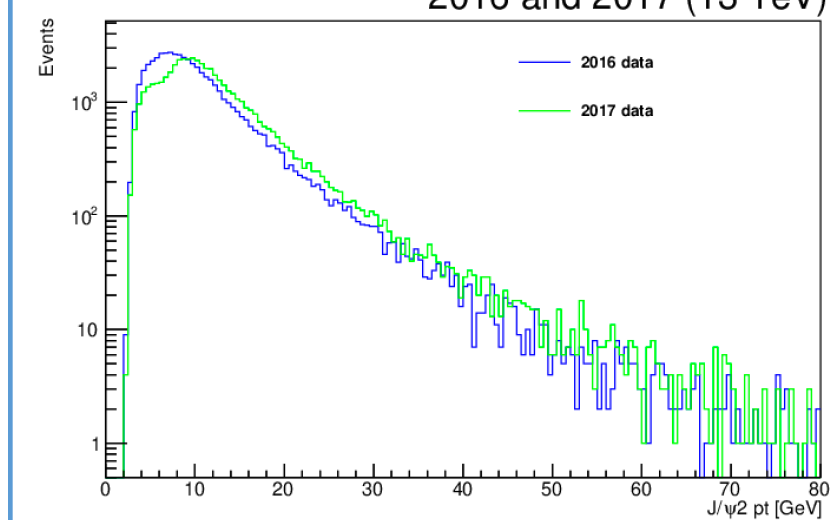
2016 and 2017 (13 TeV)



2016 and 2017 (13 TeV)



2016 and 2017 (13 TeV)

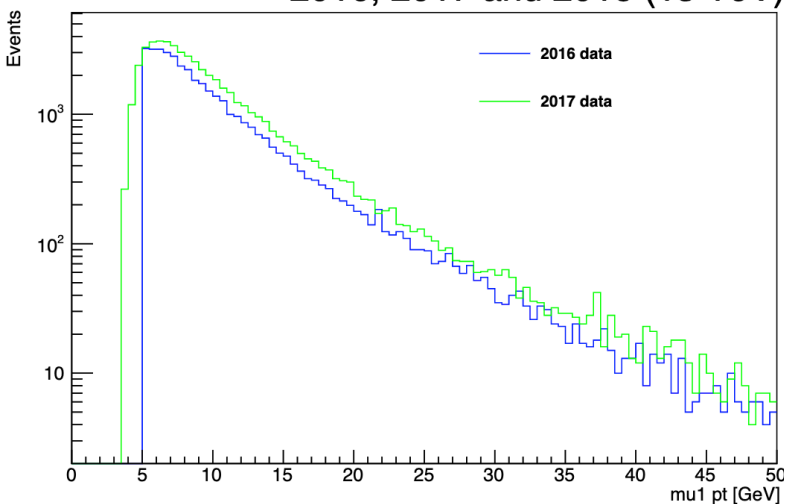




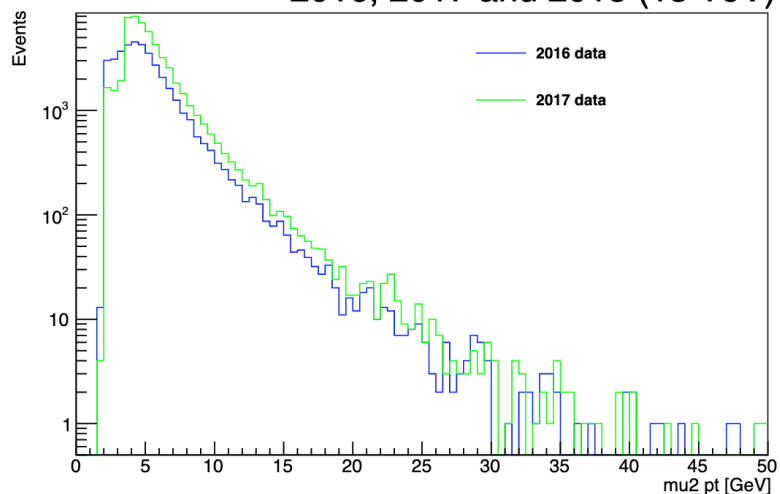
Data



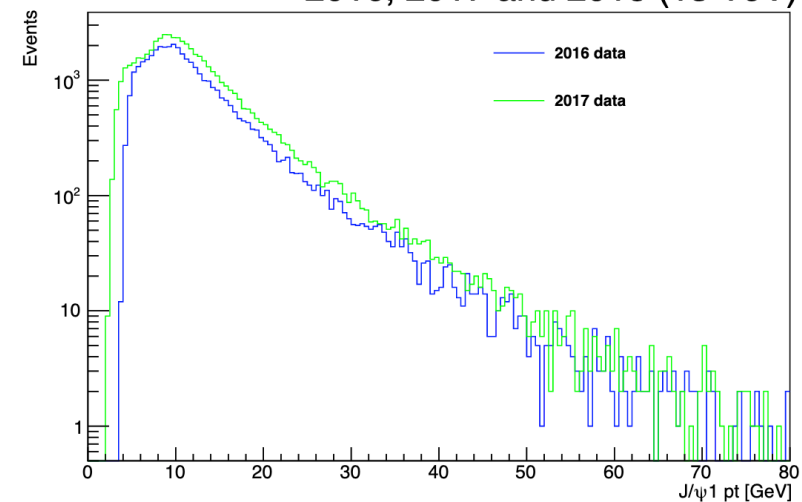
2016, 2017 and 2018 (13 TeV)



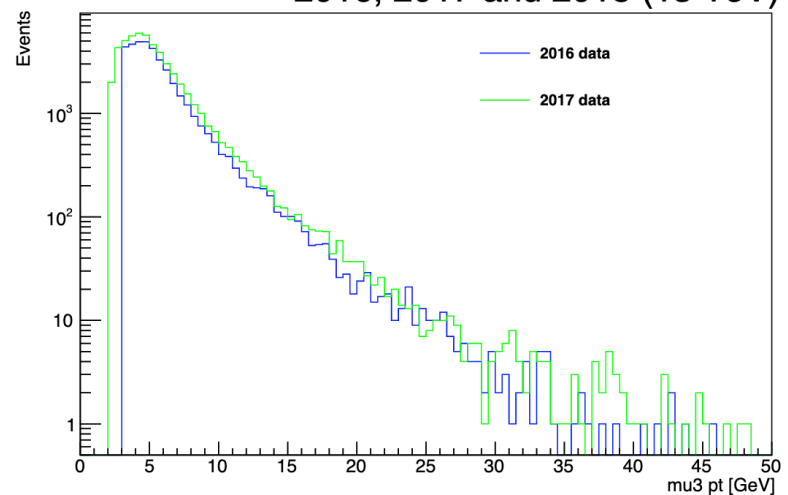
2016, 2017 and 2018 (13 TeV)



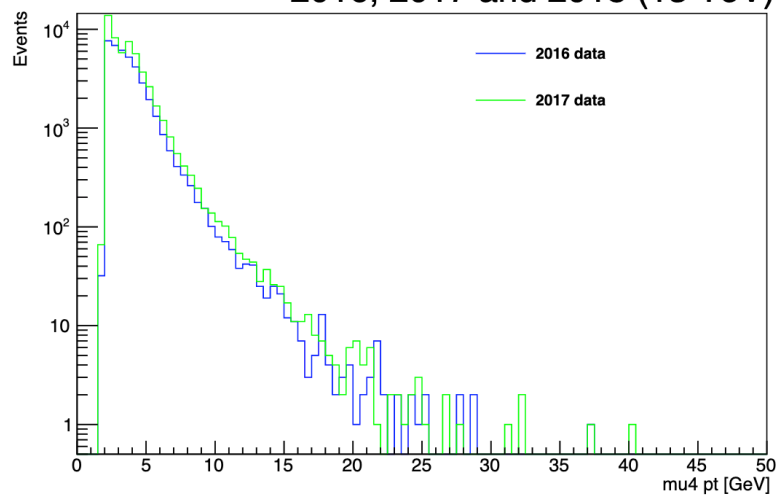
2016, 2017 and 2018 (13 TeV)



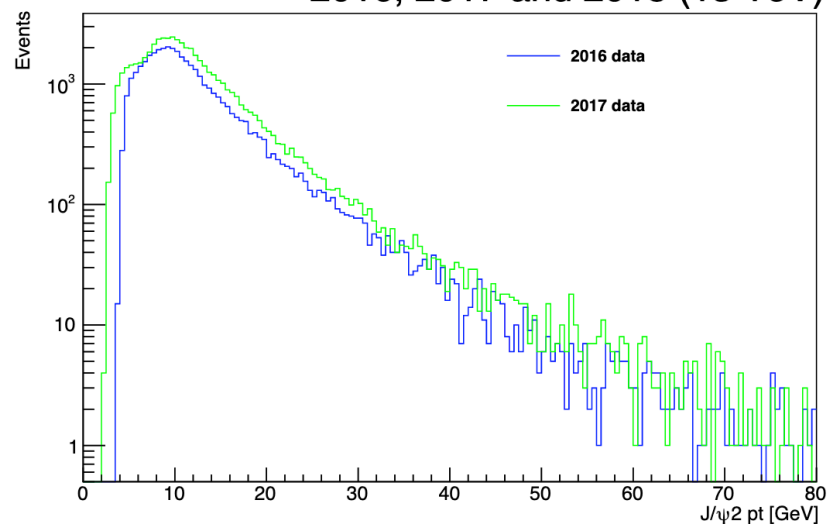
2016, 2017 and 2018 (13 TeV)



2016, 2017 and 2018 (13 TeV)



2016, 2017 and 2018 (13 TeV)



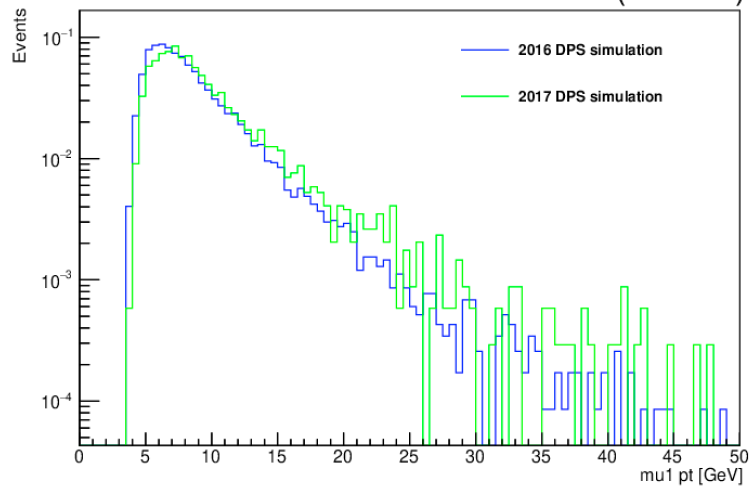
leading mu pt >5GeV, 2nd leading mu pt >3GeV



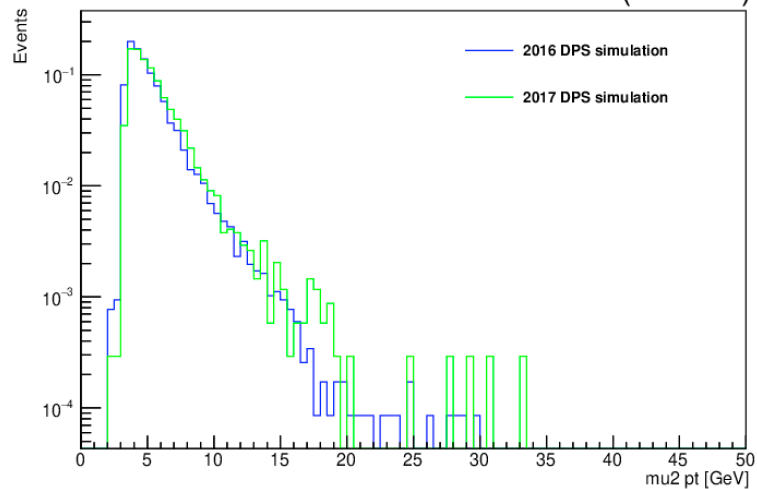
MC(DPS)



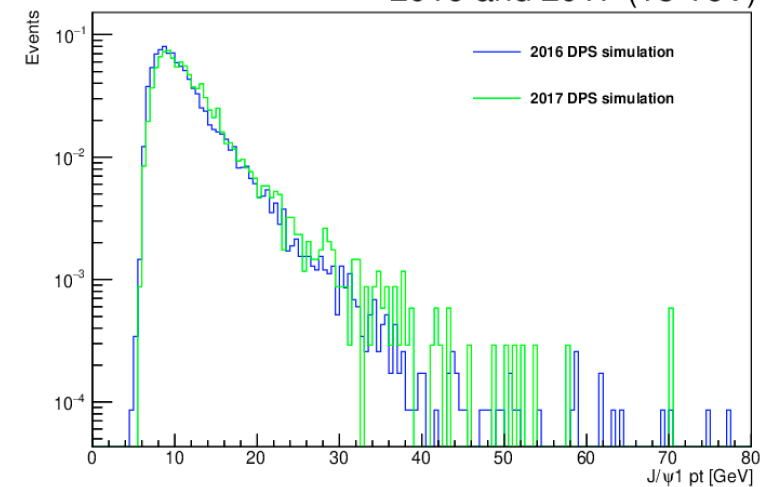
2016 and 2017 (13 TeV)



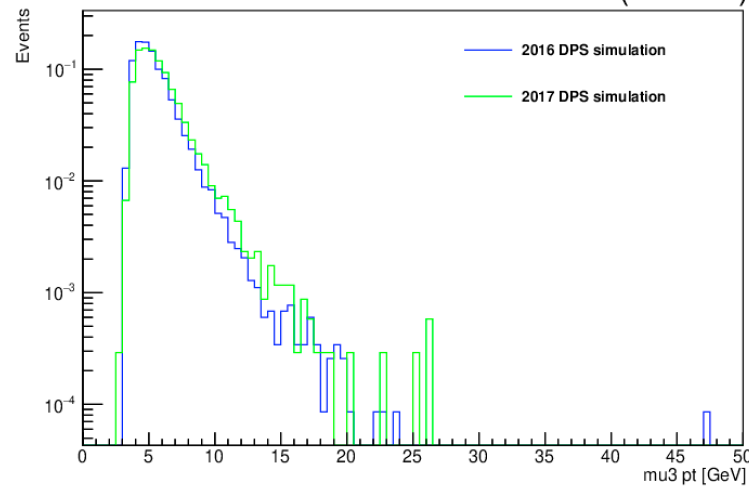
2016 and 2017 (13 TeV)



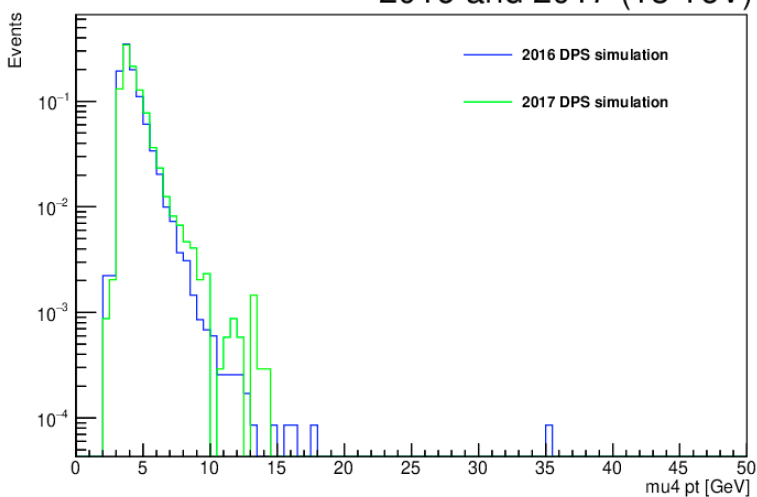
2016 and 2017 (13 TeV)



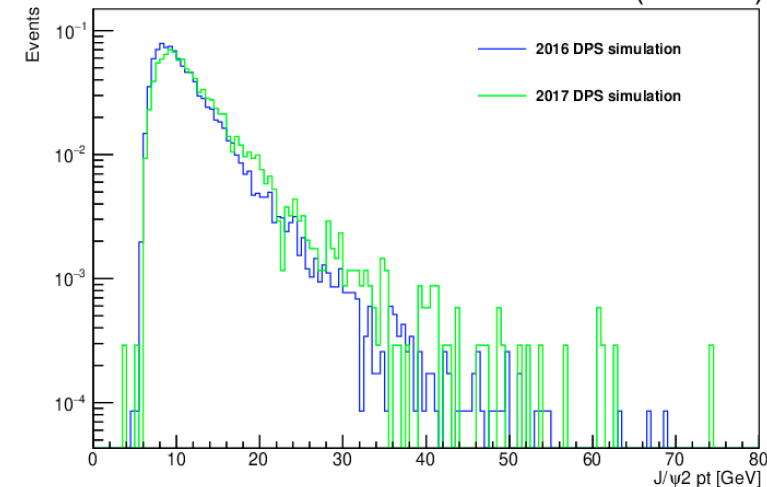
2016 and 2017 (13 TeV)



2016 and 2017 (13 TeV)



2016 and 2017 (13 TeV)

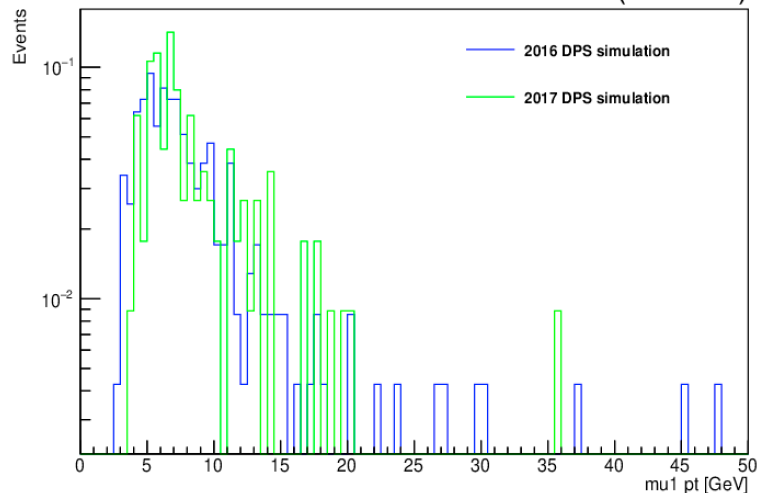




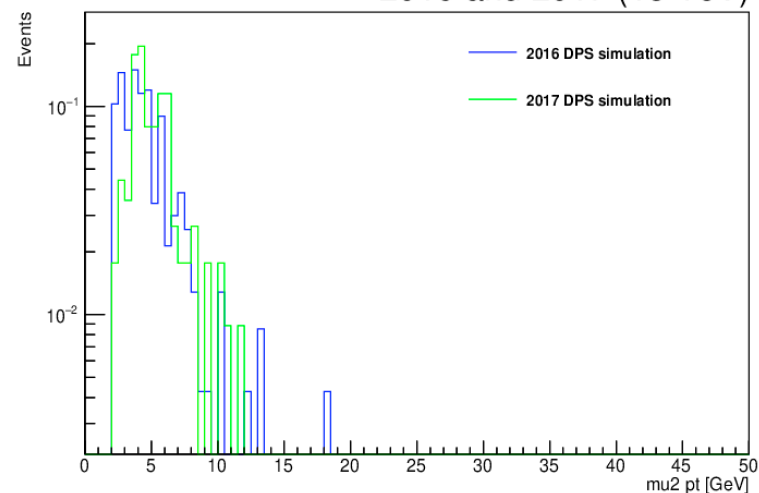
MC(DPS) official sample



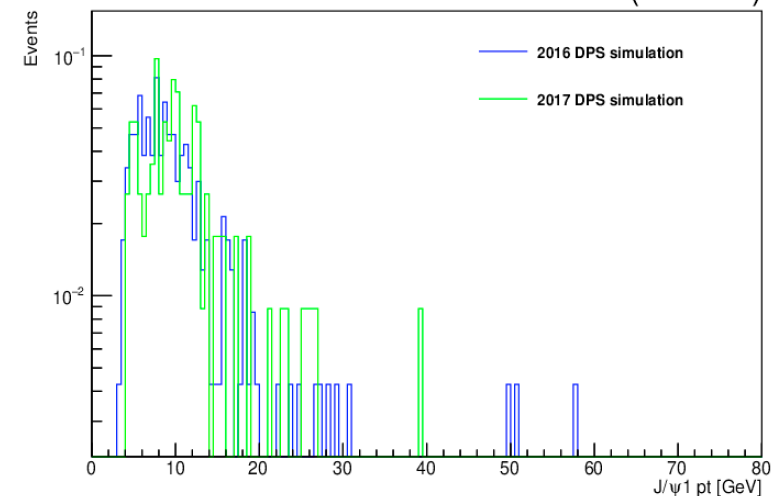
2016 and 2017 (13 TeV)



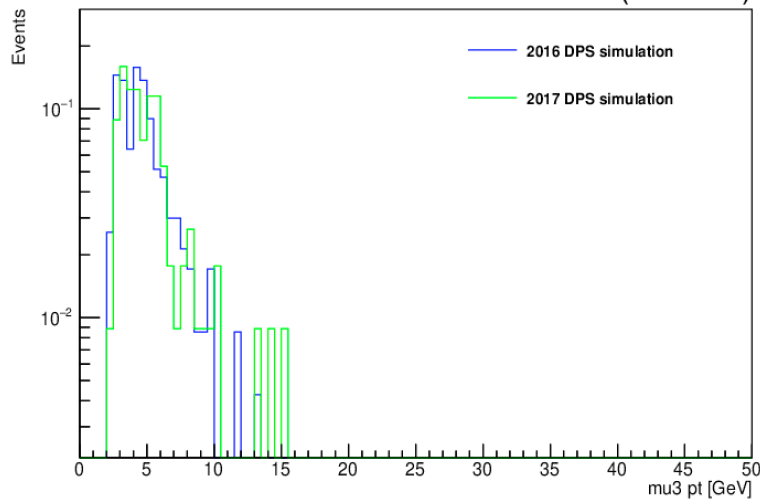
2016 and 2017 (13 TeV)



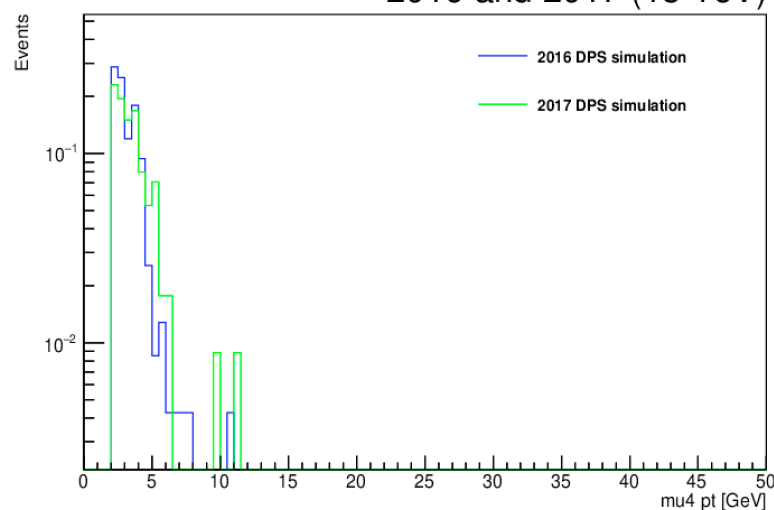
2016 and 2017 (13 TeV)



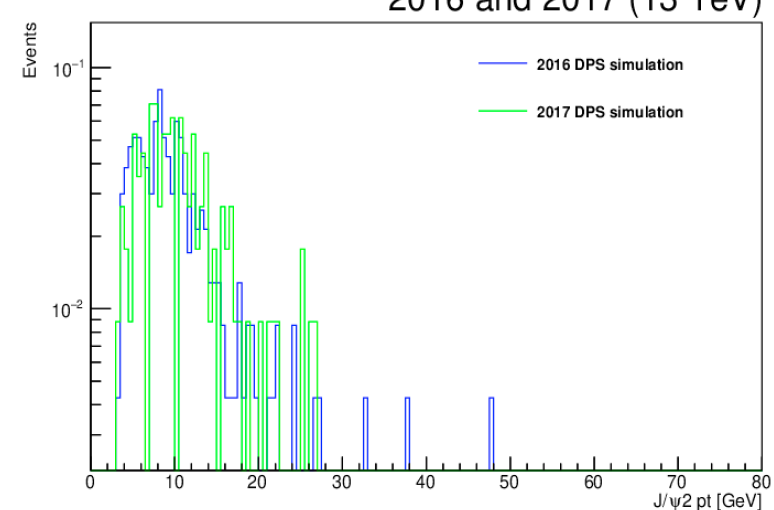
2016 and 2017 (13 TeV)



2016 and 2017 (13 TeV)



2016 and 2017 (13 TeV)

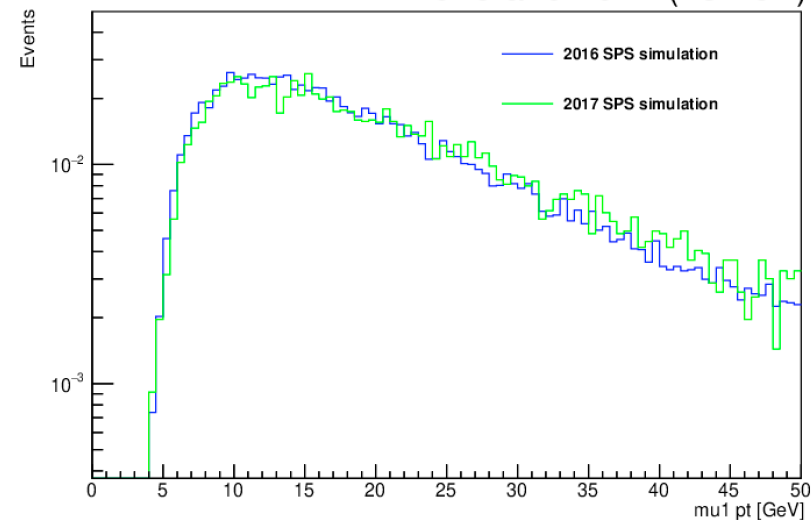




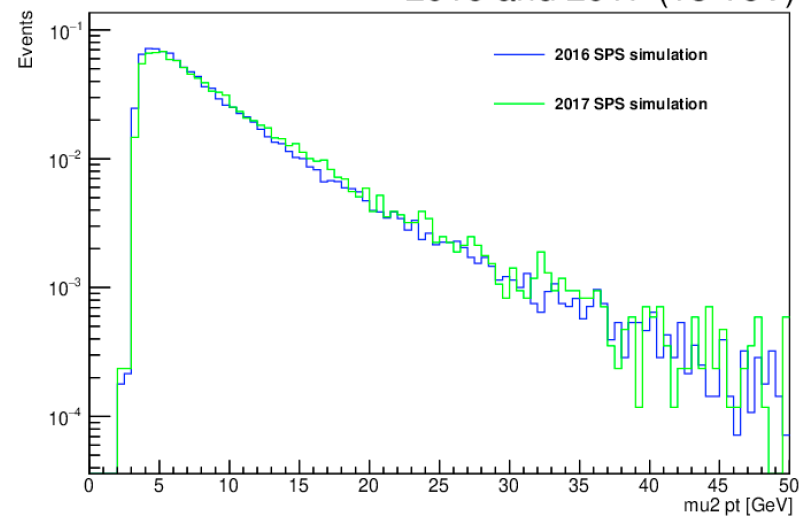
MC(SPS)



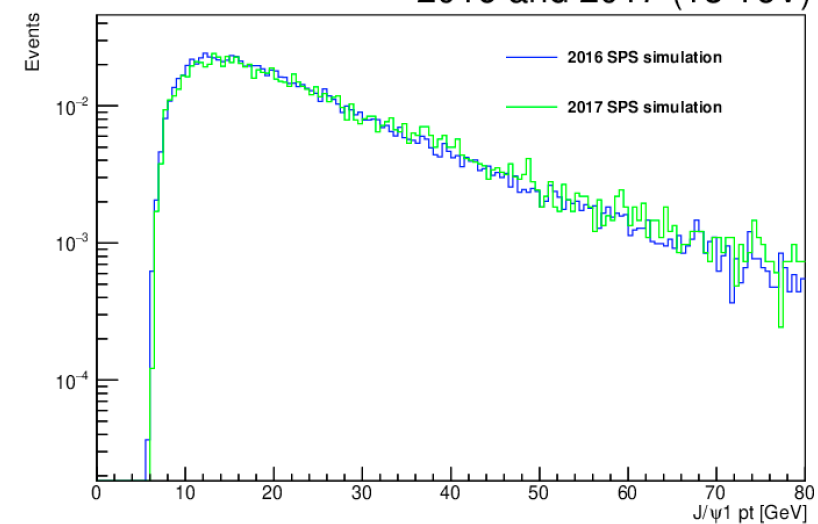
2016 and 2017 (13 TeV)



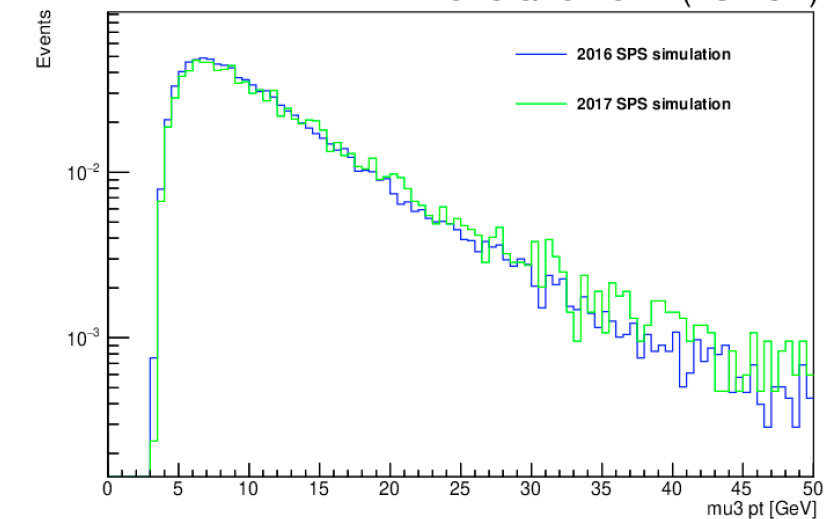
2016 and 2017 (13 TeV)



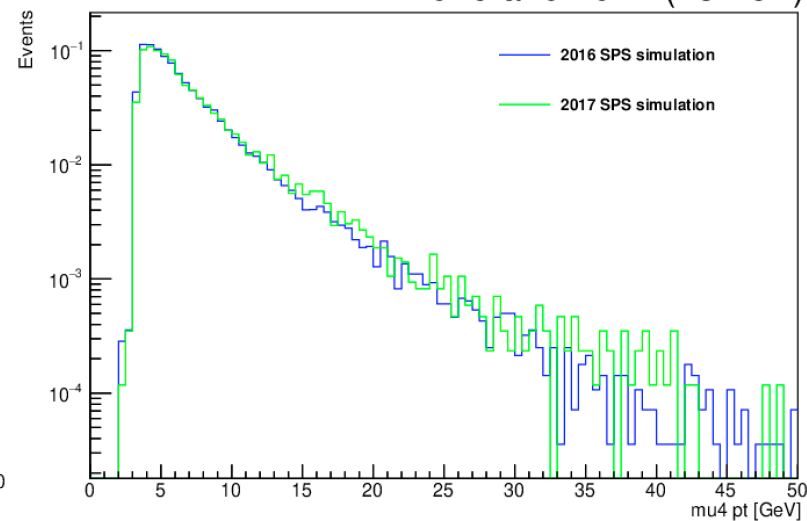
2016 and 2017 (13 TeV)



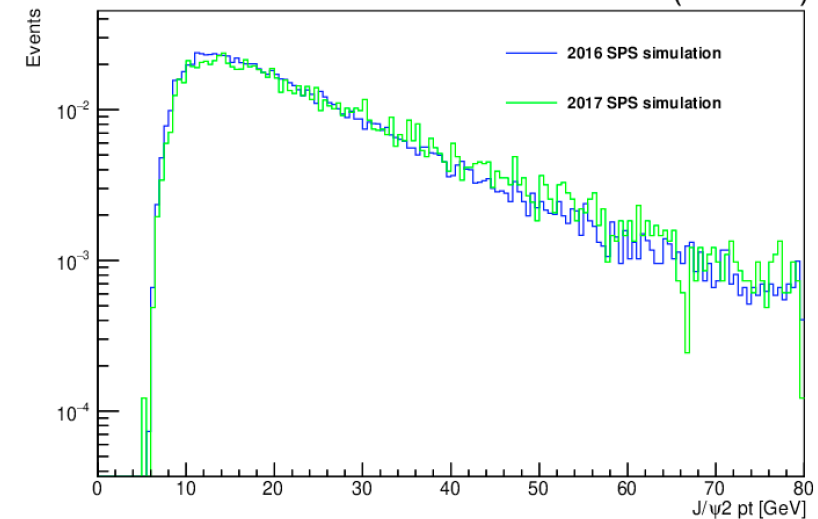
2016 and 2017 (13 TeV)



2016 and 2017 (13 TeV)

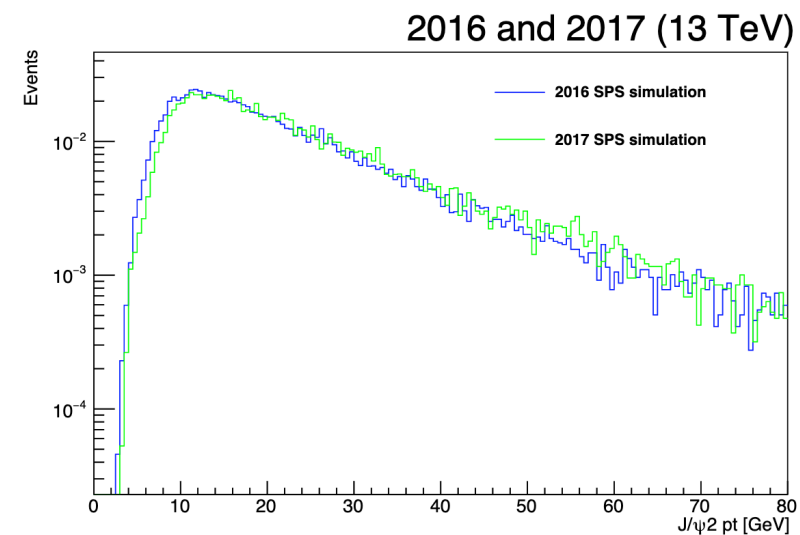
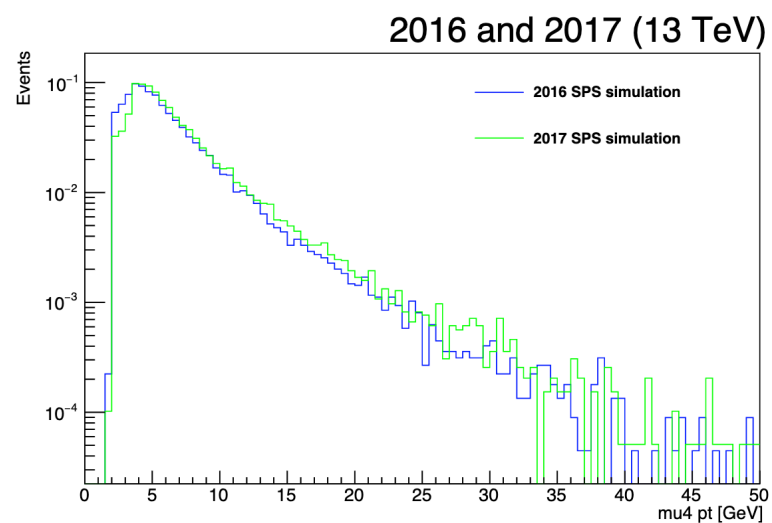
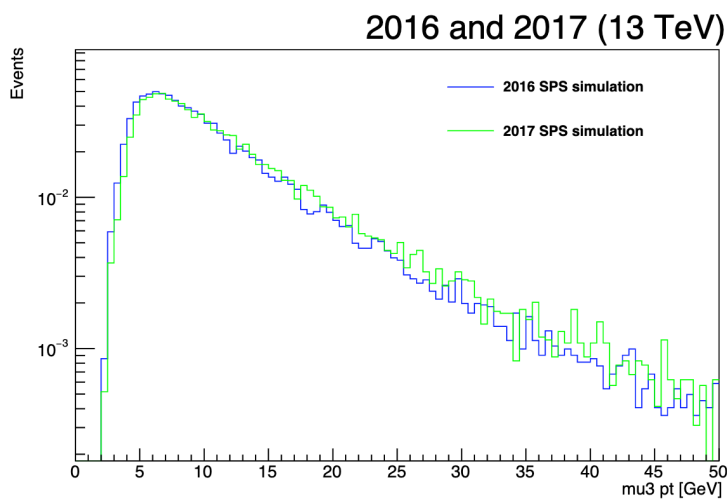
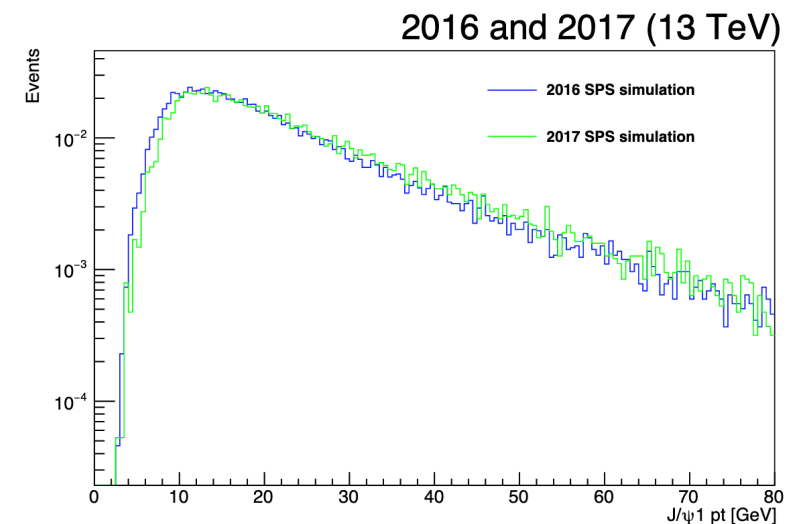
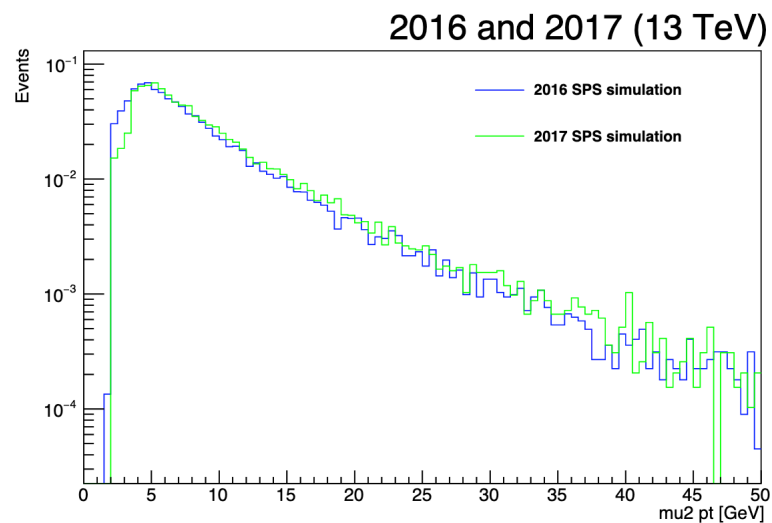
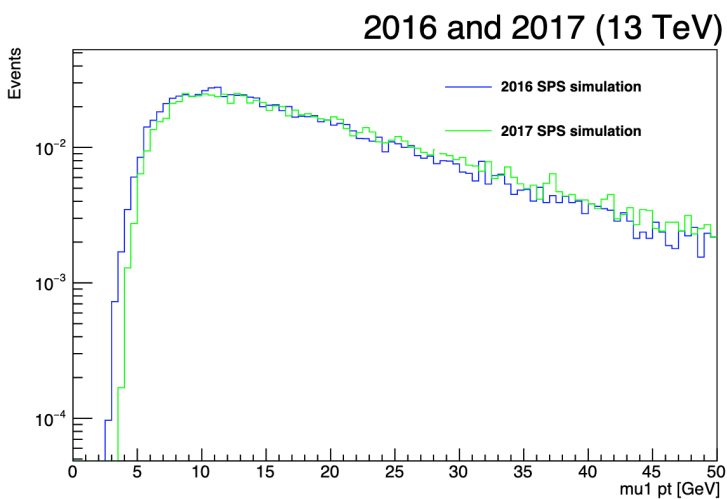


2016 and 2017 (13 TeV)





MC(SPS) official sample





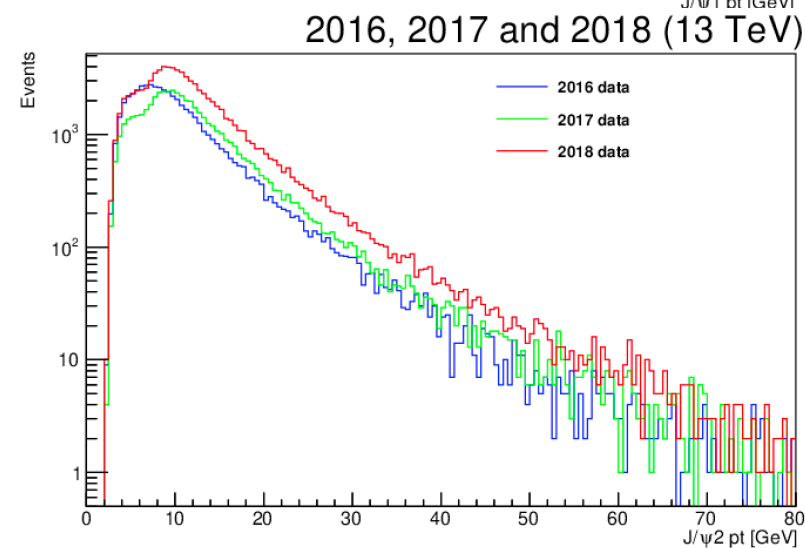
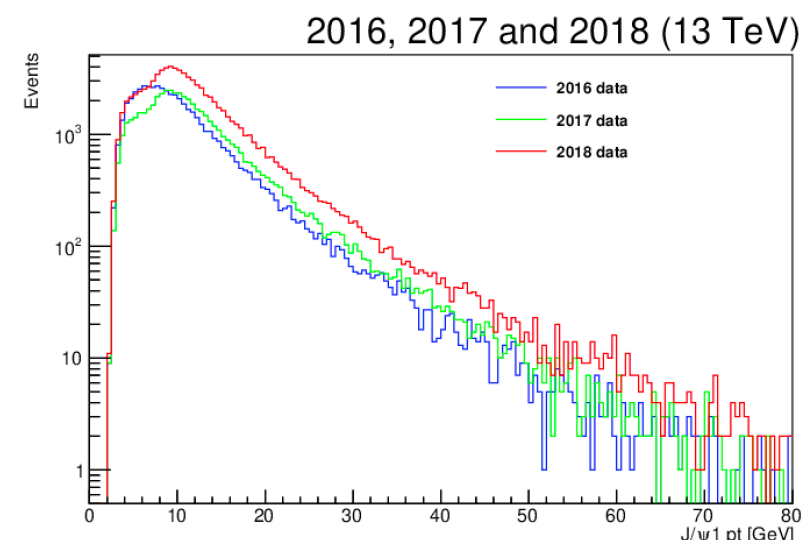
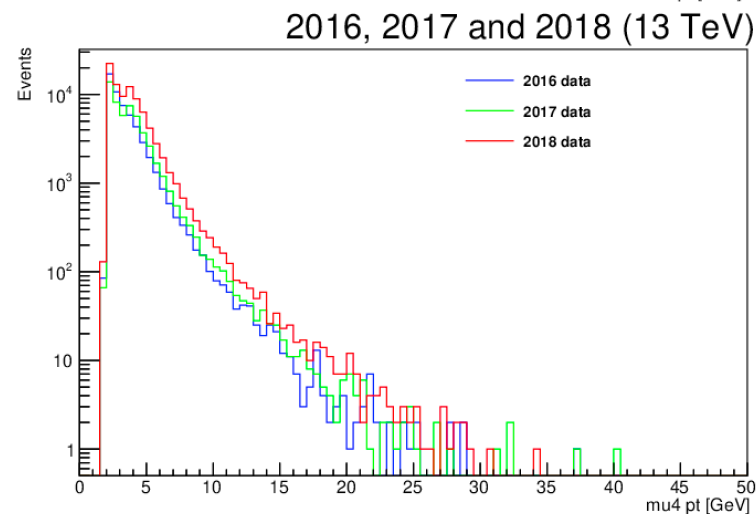
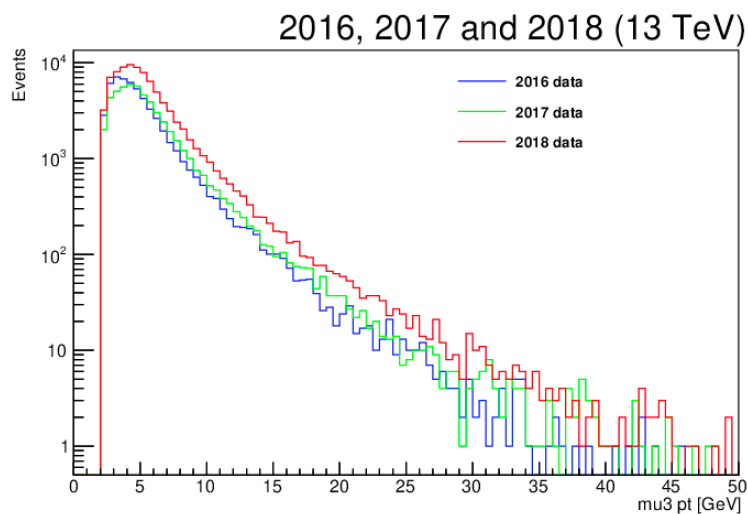
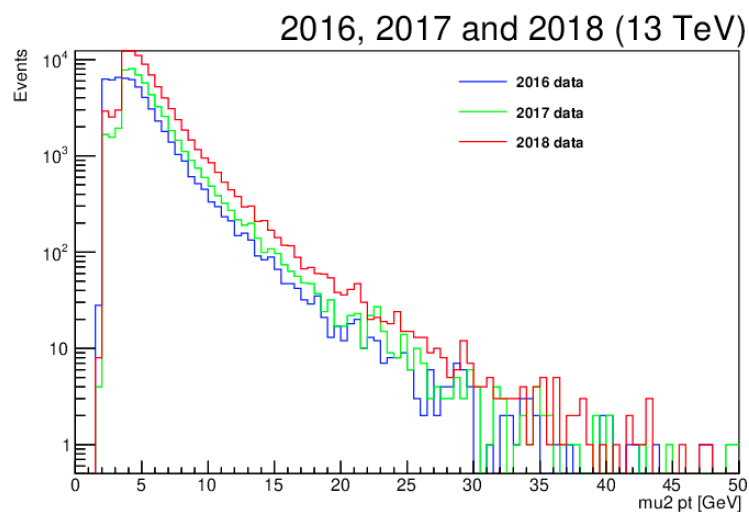
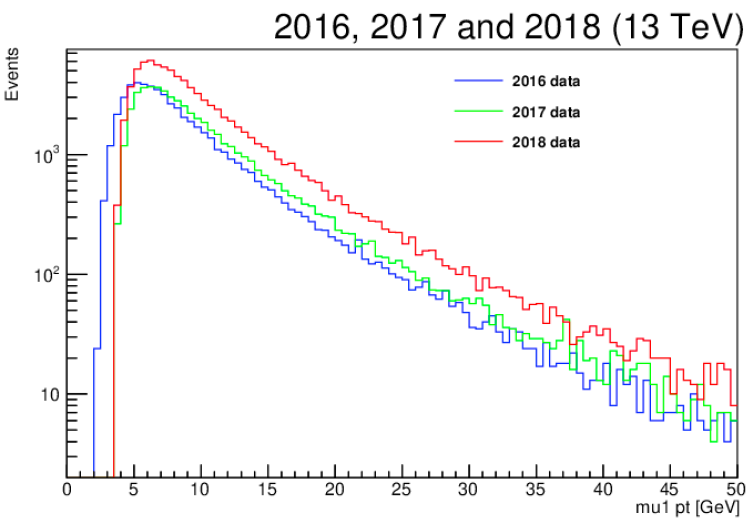
Cut flow	2016	2017
Total entries	85903	88355
trigger cut and mass cut	55091	53512
mu cut(lleading mu pt >5)&& trigger and mass cut	14712	20235
mu cut&& trigger mass cut && Jpsi cut	7290	9832



Cut flow	2016	2017
Total entries	85903	88355
trigger cut and mass cut	55091	53512
mu cut(all mu pt >5)&& trigger and mass cut	3713	5082
mu cut&& trigger mass cut && Jpsi cut	3077	4121



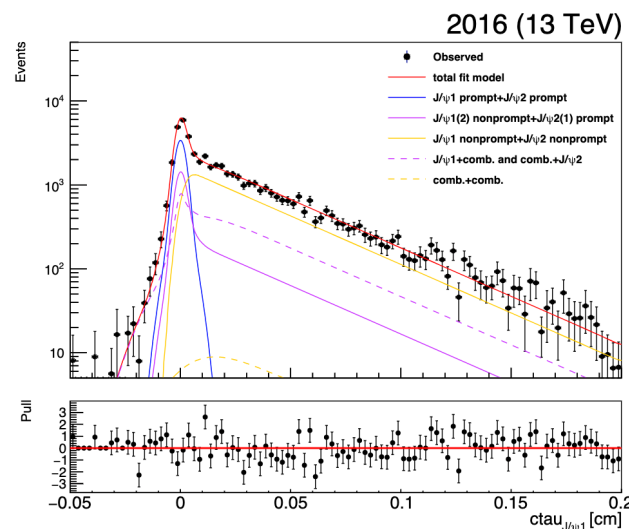
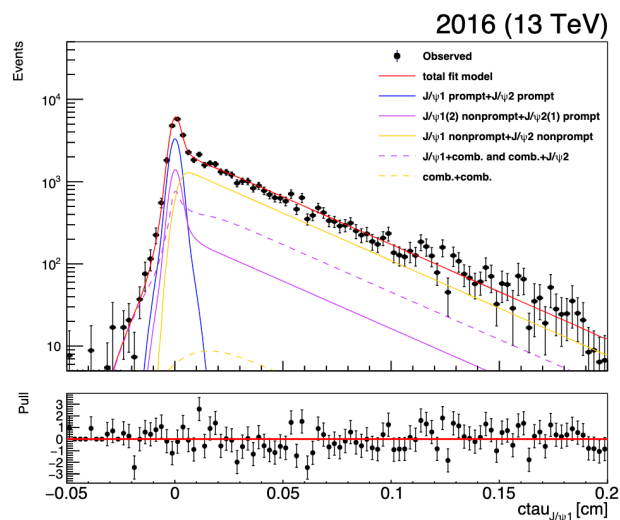
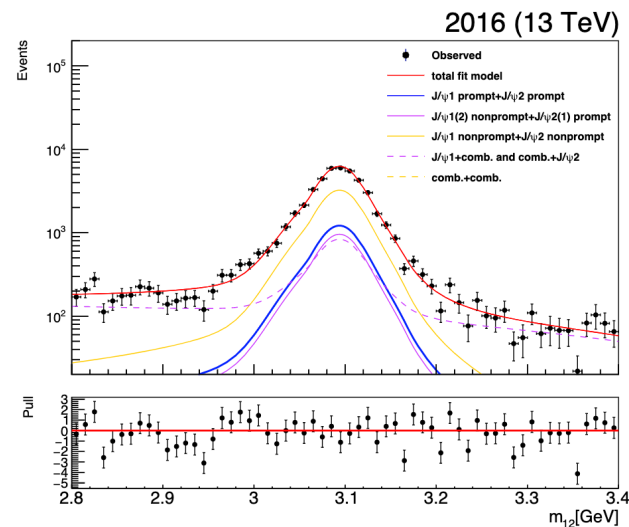
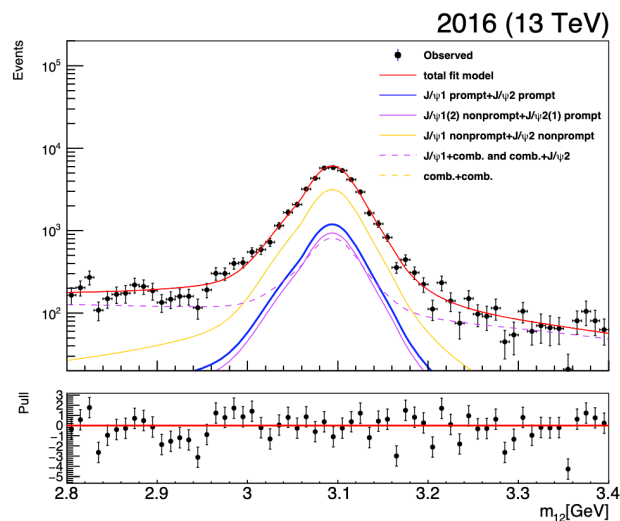
Cut flow	2016	2017
Total entries	85903	88355
trigger cut and mass cut	55091	53512
mu cut(mu pt >2)&& trigger and mass cut	54953	53424
mu cut&& trigger mass cut && Jpsi cut	9426	12140
Cross section	11.50+-0.36pb	12.94+-0.36



- 2018 data choose minimal chi2 Jpsi pair

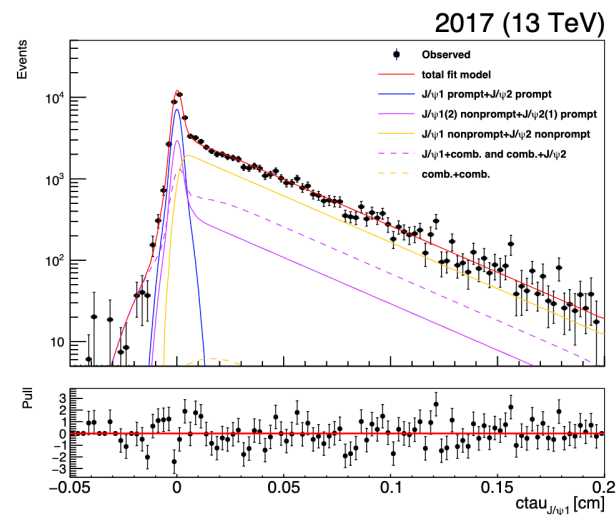
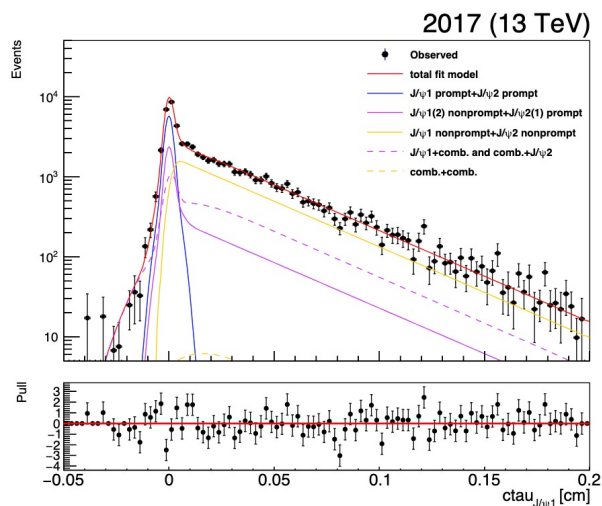
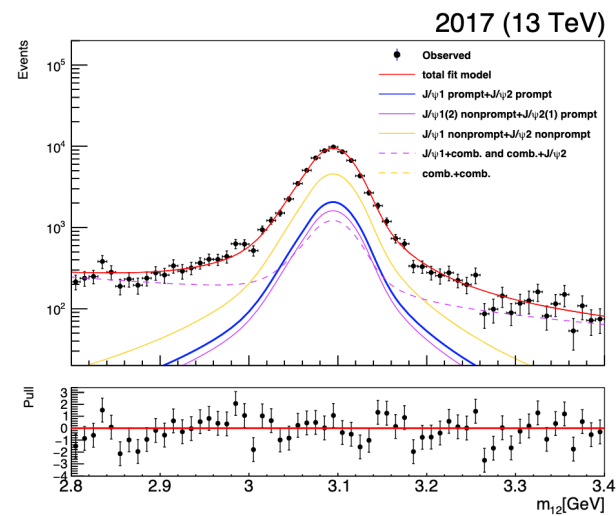
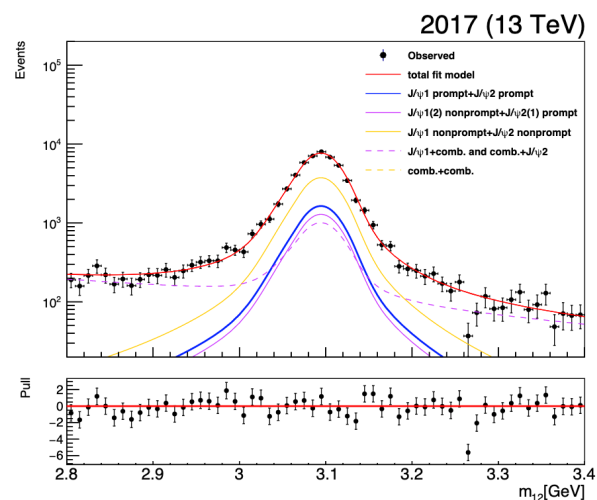


2016



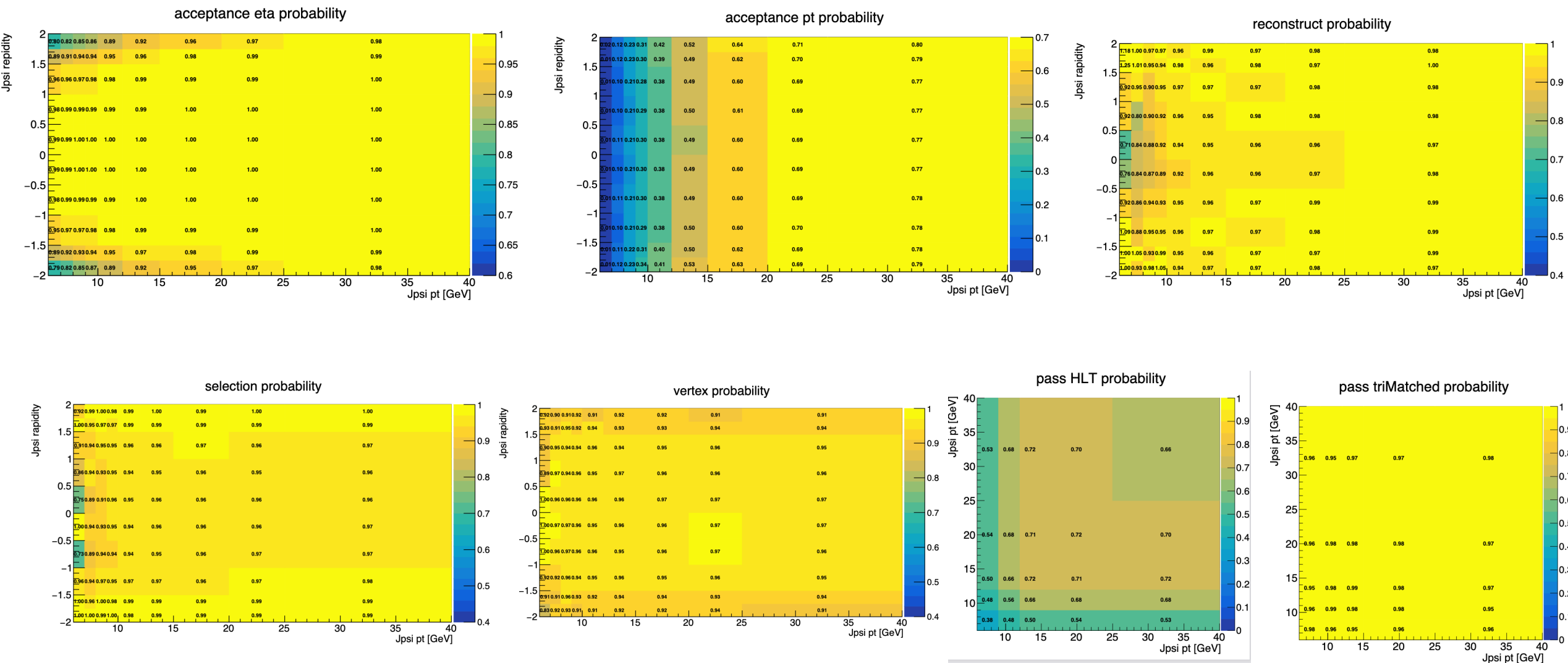
$68.32 \pm 2.60 \text{ pb}$

$69.72 \pm 2.63 \text{ pb}$



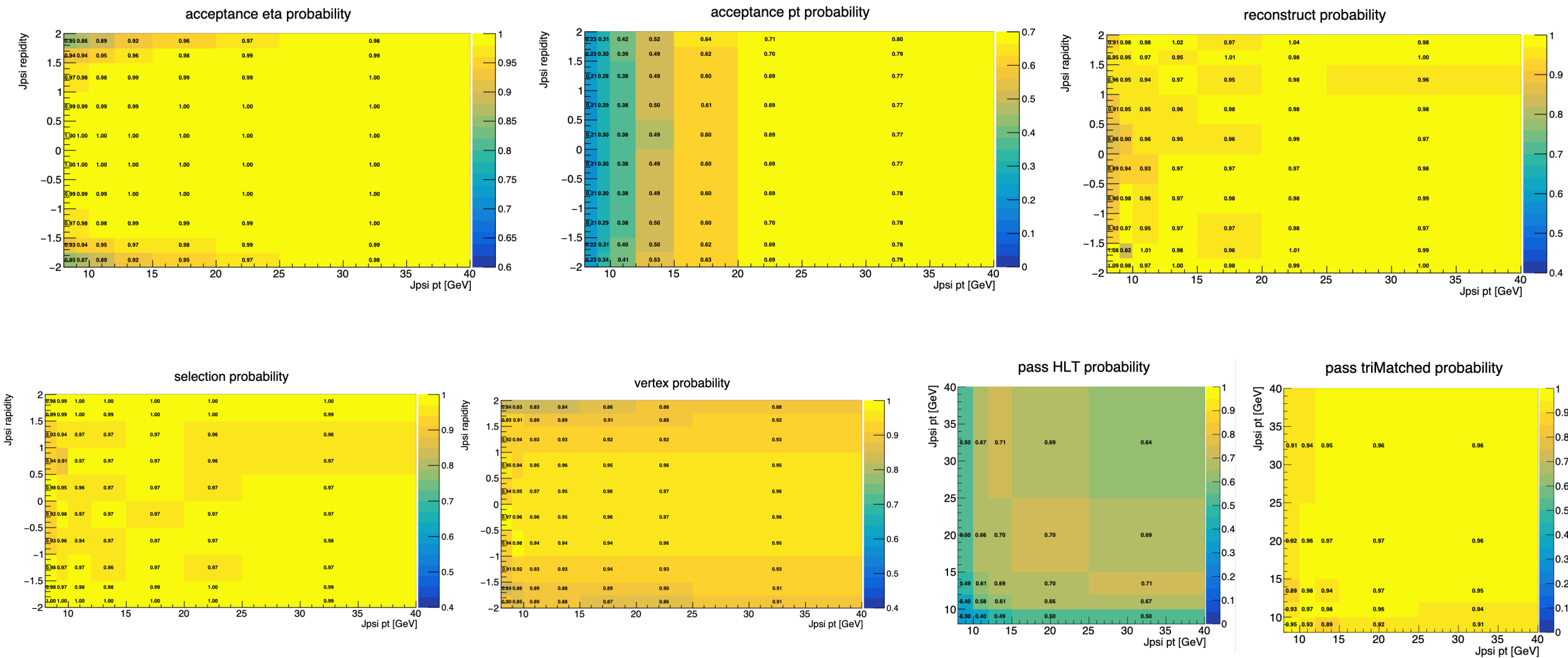
$91.36 \pm 2.98 \text{ pb}$

$117.22 \pm 3.62 \text{ pb}$





2017(old)



• 1



2017(new) official

